

Stress Perceptions, Coping Responses, and Time Management Skills
of Ball State Baccalaureate Nursing Students

An Honors Thesis
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of Ball State Baccalaureate Nursing Students

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Introduction

The beginning of nursing school can be very stressful for many students. New experiences and a marked increase in workload can contribute to an increase in perceived stress. Students are suddenly required to use time management and coping skills more effectively. Much research and evaluation has been conducted on Ball State University's four year nursing program from the administrative and faculty perspective. However not much research has been conducted from the perspective of the students. Little research has examined how students perceive stress, cope, and manage the trials of nursing school.

Students often verbalize that they are consistently stressed throughout the entire curriculum. Many factors may contribute to the increase of stress during the nursing program. One of the biggest stressors may be the constant threat of failure. Many physical stressors can add to the stress; lack of sleep and a limited social life due to demands of time are some factors that can lead to the increase of stress.

The purpose of this descriptive study is to examine the perceived stress levels, primary concerns, coping strategies, and time management skills of Ball State University

baccalaureate nursing students across different levels of the nursing curriculum. By examining these variables from the perspective of the nursing students, a better understanding of what contributes to the stress and what can alleviate the stress in nursing school can be determined. Once these factors are determined, future nursing students may be able to recognize stressors and choose effective ways to cope with them.

The design of this research study is descriptive. The research questions that guided this study were as follow:

1. What are the stress levels of nursing students at varying levels of the curriculum? (first two weeks of the curriculum, the current semester, and overall semesters)
- 2.What coping strategies are used by nursing students?
- 3.How effective are selected coping strategies?
- 4.What are time-management strategies used by nursing students?
- 5.How effective are selected time-management strategies?

Instrumentation

The instrument used in this study was a thirteen-item survey consisting of eight closed-ended questions and five open-

ended questions. A survey approach was chosen to obtain as many of responses as possible from the existing population and to compare results across the different levels of the curriculum. The survey was a newly developed tool drawn from perceptions and experiences reported by students currently in the junior and senior levels of Ball State University's nursing program. Dimensions that were examined were stress levels, what factors contributed to the stress, coping and time management skills of the students. A copy of the survey and cover letter is located in appendix A. Five closed-ended questions were constructed as visual analog scales. Respondents were instructed to mark an "X" on a 10 centimeter line anchored on both ends by labels such as "least stress I've ever had", "most stress I've ever had", and "effective" or "not effective".

The survey was pilot-tested on five nursing students and revised. It was reviewed for content and validity by ten nursing students and a faculty advisor.

Procedure

The study was reviewed and approved by the Institutional Review Board of Ball State University. The instruments were distributed in the School of Nursing in September, 1998. They were distributed to students in five different levels of Ball

State University's nursing curriculum by the researcher and faculty. The curricular levels were labeled Sophomore, Junior 1, Junior 2, Senior 1, and Senior 2. Participation in the study was voluntary. Students were instructed to make no identifying marks on the survey to ensure anonymity. The students were given the option to complete the study in the School of Nursing or to take it with them to be completed at a later time. Completed surveys were placed in an envelope and collected on site or placed in a central collection box. It took approximately ten to fifteen minutes to complete the surveys. Collection of data ceased on October 1, 1998.

Limitations

Several limitations are recognized in this study. The instrument was newly developed without established evidence of validity and reliability. The study took place in one school of nursing only. The study needed to be multi-site and multi-cultural. The circumstances surrounding the time of distribution may have affected the results of the study. For example, the Sophomore and Senior 2 students both had examinations the week of distribution therefore affecting the perceived stress at that time.

Data Analysis

Data from the visual analog scales and closed-ended items were analyzed to determine frequencies, means, and standard deviations. Analysis of variance (ANOVA) and repeated measures ANOVA were completed as appropriate to address the research questions.

Data from open-ended items were analyzed thematically and verified by the faculty advisor. Frequencies and percentages were computed as appropriate.

Sample

The sample for this study was 101 Ball State University baccalaureate nursing students. The participants ranged in age from 20-46 years with a median age of 22 years. The majority of the participants were female. About three-fourths of the participants were single. Of the participants, 67% were employed and worked an average of 15 hours per week. According to Ball State University's nursing curriculum, the sophomores (N=24) were enrolled in the 230/232 level courses, Junior 1's (N=20) were enrolled in the 330 level courses, Junior 2's (N=18) were enrolled in the 340/350 level courses, Senior 1's (N=19) were enrolled in the 404/406/408 level courses and the Senior 2's (N=20) were enrolled in the 423/425/430 level courses.

Results

Response rate for the survey was 79%. All 101 surveys returned contained useable data and were included in the analysis. The quantitative results of the study are organized and presented by research questions. Qualitative findings are summarized.

Research Question One

Research question one addressed the stress levels of the nursing students at varying levels of the curriculum during the first two weeks of nursing school, the semester they were currently in, and across all semesters. When participants were asked to report their level of stress in the first two weeks of nursing school, findings revealed that students across all curriculum levels recalled stress perception as very high, with a mean of 8.3 (SD 1.94) on a 10-point visual analog scale.

When participants were asked to report their level of stress during this current semester, findings revealed that stress levels were not the same across the five levels of the nursing program ($F(4,96)=18.77, p<.001$). Significant differences in stress levels were found between Senior 1 students and all other students in the curriculum, with Senior 1 students reporting a significantly lower stress level ($p<.05$). In addition, Junior 1 students were significantly less stressed

than Sophomore students ($p < .05$) and Senior 2 ($p < .05$) students but were significantly more stressed than the Senior 1 students ($p < .05$) See Table 1.

Table 1
Mean and Standard Deviation for Stress Perceptions of
Baccalaureate Nursing Students Across Curricular Levels
During This Current Semester ($N=101$)

<i>Curricular Level</i>	<i>Mean</i>	<i>SD</i>
<i>Sophomore</i>	8.13	1.85
<i>Junior 1</i>	5.95	1.76
<i>Junior 2</i>	6.61	2.12
<i>Senior 1</i>	3.79	1.87
<i>Senior 2</i>	8.15	1.76

When participants were asked to report stress levels retrospectively for each semester of the nursing curriculum they had completed, findings of a repeated measures ANOVA indicated that stress levels were not perceived to be the same across the four time periods by Senior 2 students who had completed four semesters. ($F(3,57)=10.95, p < .001$). Senior 2 students reported that, of all semesters completed, the first one was the most stressful.

Research Questions Two and Three

Research questions two and three addressed the coping mechanisms that Ball State Baccalaureate students used and the

effectiveness of the coping mechanism. The questions that measures coping mechanisms were open-ended to be filled in by the participant and the effectiveness of each mechanism was rated on a 10-point visual analog scale. The top ten responses are shown in Table 2.

Table 2
Rank, Frequency and Effectiveness of Coping Mechanisms
used by Ball State Baccalaureate Nursing Students (N=101)

Rank	Coping Mechanism	Frequency	Effectiveness
1	Exercise	63	7.78
2	Talk with friends	21	7.29
3	Watch TV and movies	20	6.15
4	Drinking/Smoking	18	6.50
5	Forget about studying for a short period of time	17	7.71
6	Go out with friends	15	7.93
7	Sleep/ take a nap	14	6.71
8	Hobbies/activities	12	7.67
9	Make a to do list/organize	11	8.73
10	Time with family and friends	10	8.90

Research Questions Four and Five

Research questions four and five addressed the time-management skills of the students and their effectiveness of the skills. The time-management skills were open-ended to be filled in by the participants and the effectiveness was rated on a 10-point visual analog scale. The results of this data analysis

are shown in Table 3.

Table 3
Rank, frequency, and effectiveness of time-management strategies
used by Ball State Baccalaureate nursing students (N=101)

1	Use of daily planner	37	8.19
2	Maintain calendar of events	23	8.22
3	Make lists	23	8.48
4	Prioritize	18	8.00
5	Use extra time wisely	15	7.42
6	Keep a regular schedule	11	7.36
7	Work ahead	9	8.89
8	Stay organized	8	7.63
9	Pick a day to study	8	6.75
10	Set aside time to read	7	7.33

Qualitative Data

Four open-ended questions were asked to collect the qualitative data. The first question asked the students what they could have benefited by knowing about nursing school to help relieve stress. Many responses were reported across the five levels of the curriculum. Of the responses received from each level, most students wanted to know before school started how time consuming nursing school actually was. The next major factor the students wanted to know was that nursing school is very expensive and how much the cost of supplies were.

The next question asked the students, retrospectively to identify, the most stressful aspects of the sophomore year of nursing school. The response most frequently noted was the skills competency exams. Of the levels of the curriculum which had skills competency exams, about eighty percent of the students listed the skills competency exams as one of the most stressful aspects. Other frequently mentioned aspects were the clinical practice, threat of course failure, tests, and lack of effective time-management skills.

The next question asked each respondent to give one major concern that they had for the semester in which they were currently enrolled. For each level, only the top concern is reported, despite a variety of responses. The sophomore level was concerned about not passing the course. The Junior 1 level was concerned about new clinical experiences, such as giving their first shot and starting their first intravenous line. The Junior 2 level was concerned about not passing the difficult semester. The Senior 1 students were concerned about not passing. The Senior 2 students were also concerned about not passing and specifically graduating.

The last question asked the respondents to list helpful hints for an incoming class of nursing students. Some of the most frequently reported helpful hints were to not procrastinate, keep in mind that things do get better as they

progress through the program, stay organized, and to keep support systems.

Discussion/Conclusions

Participants reported a markedly high level of stress during the first two weeks of the nursing curriculum. The perceived stress was primarily related to tests, the skills competency tests, amount of reading, clinical experiences, and the constant threat of failure. Because many of these things are new experiences to the student, stress levels are increased. The threat of failure is often a very new concept to many of these new, bright students. Nursing school suddenly requires an individual to not only use their mind but their hands and coordination to successfully pass a skilled competency exam and apply it in a clinical setting.

Participants also reported significantly higher levels of stress during the last semester of the curriculum, possibly related to one majority concern about passing their final courses and qualifying to graduate. Last-semester courses were reported to be demanding and focused on managing groups of patients and caring for critically ill patients. In addition, during the last semester, students face the transition from student to full-time professional employee, are applying for

nursing positions, are terminating college relationships, and are often preparing to move geographically.

The first semester of the senior year was significantly less stressful possibly due to the nature of the material the students are learning during this semester. The material involved pediatric, maternal child, and community health nursing, which most students seemed to enjoy. However, with three clinical nursing courses it required astute time-management skills and most of the respondents were concerned about getting all of the required work finished on time.

Exercising was clearly the most frequently used coping strategy and was reported as quite effective. Distractive or "escape" strategies were also frequently cited with moderate effectiveness reported. Making a to-do list and spending time with family and friends, while less frequently reported, were noted to be highly effective coping strategies.

Frequently used and effective time management strategies centered around written records of events, such as calendars, planners, and lists. Working ahead, while not cited frequently, was noted to be highly effective.

Recommendations

Replication of this study is needed in other schools of nursing in order to examine the effect of specific curricular

patterns and factors on the results. In addition, further testing of the survey is needed to support validity and reliability and to facilitate refinement of the items.

Future study can more closely examine gender and age differences in perceived stress and coping patterns. Interventions can eventually be developed and tested. For example, the results of this study will be used to develop a pamphlet for distribution to beginning nursing students in an effort to reduce the stress and anxiety that often persists throughout the years of nursing school.

Stress Inventory Survey

The data for this survey are going to be collected and analyzed by a fellow nursing student. The data are going to be analyzed and used to further benefit future nursing students.

1) What is your age in years? _____

3) Are you currently employed? Yes__ If so, how many hours a week do you work? ____
No __

5) Rate your level of stress within the first two weeks of nursing school. (NUR230)
by placing an X on the line below.

6) Rate your level of stress this semester using the same scale and placing an X on the line below.

Least Stress ----- Most Stress
I've Ever Had I've Ever Had

- 7) What are some examples of stress relieving measures that you do now or have used in the past to relieve stress. (These can be healthy, exercising for example, or destructive, drinking for example) Please list up to three stress relieving measures and indicate how effective each is by placing an X on the line.

1)

Not at all effective ----- Very effective

2)

Not at all effective ----- Very effective

3)

Not at all effective ----- Very effective

- 8) What information would have benefited you to know about nursing school and would have helped you to relieve stress? (Example: How much the supplies cost.)

- 9) What are some of the most stressful aspects of the nursing classes 230 and 232?

- 10) What is the biggest (only one) concern that you have about nursing school this semester?

- 11) What are some of the time-management skills that you are currently using? Please list up to three and indicate how effective each is by placing an X on the line.

1)

Not at all effective ----- Very effective

2)

Not at all effective ----- Very effective

3)

Not at all effective ----- Very effective

- 12) Please list as many helpful hints that you can think of that would benefit students in an incoming freshman nursing class.

- 13) Place an X on the line indicating your stress levels during each semester of the nursing program. Only place an X on the line of the classes you have completed.

Least Stress ----- 230/232 ----- Most Stress

Least Stress ----- 330 ----- Most Stress

Least Stress ----- 340/350 ----- Most Stress

Least Stress ----- 404/406/408 ----- Most Stress